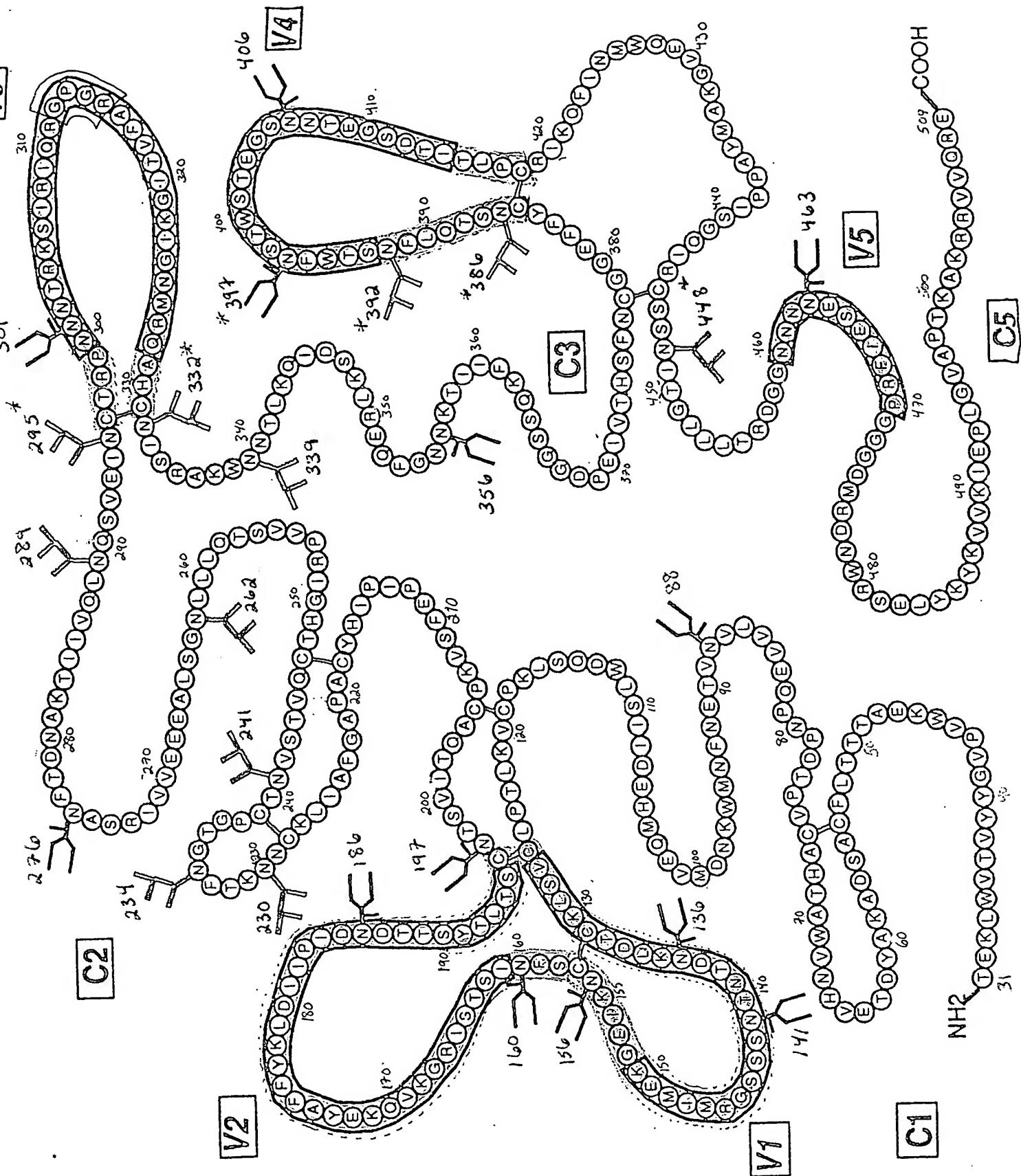


XB2

Figure 1.



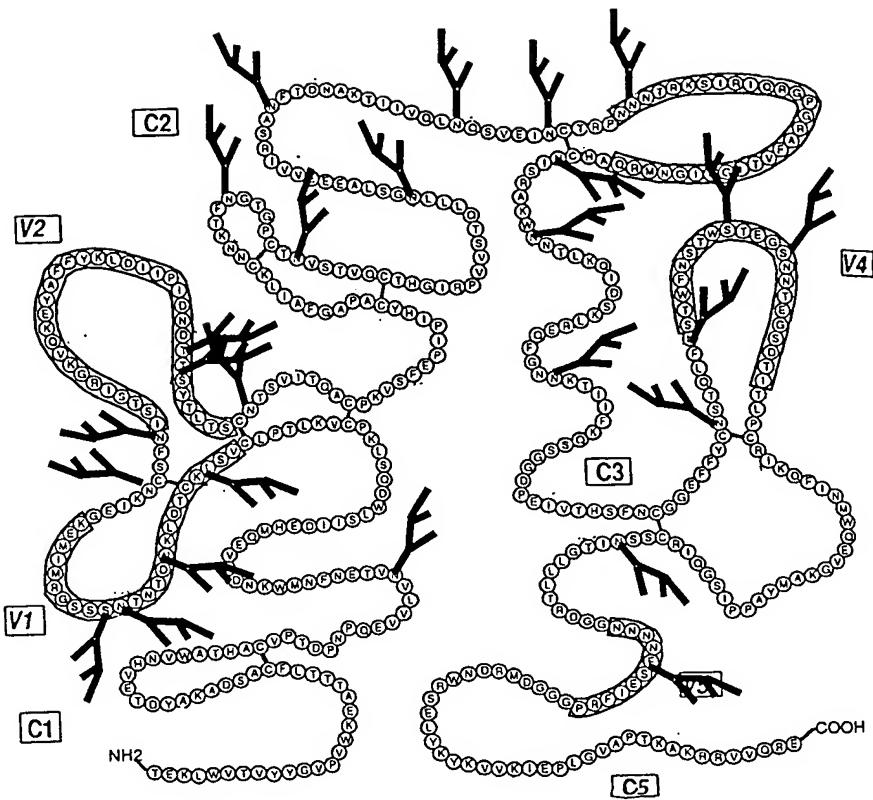
2612 epipore

γ high mannose

complex

Figure 2

Clade B
NSI



Clade B
SI

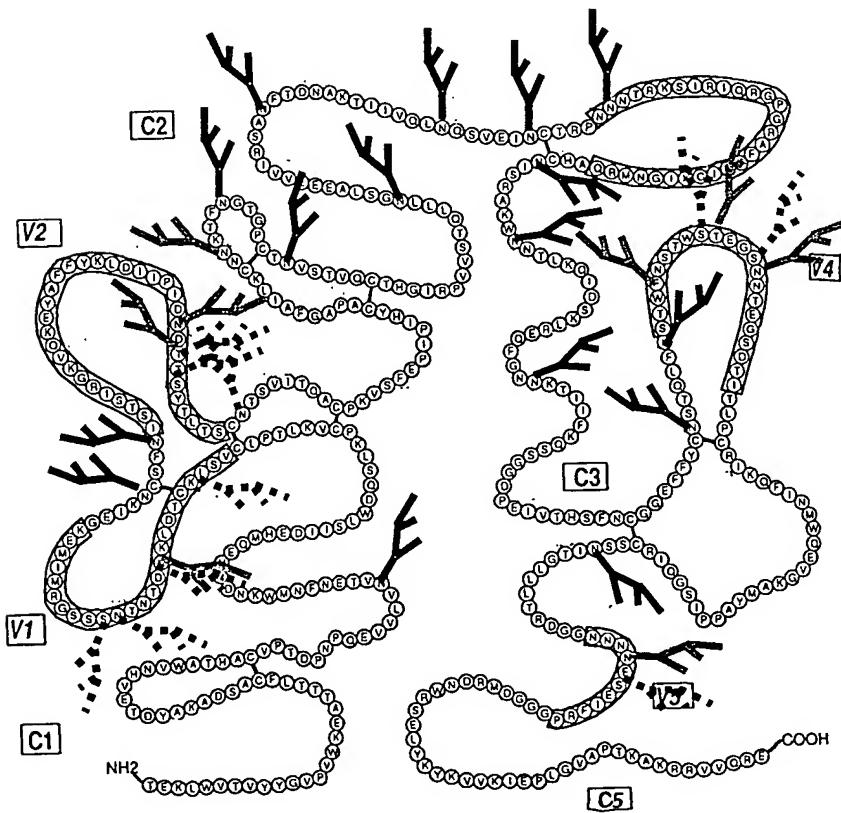
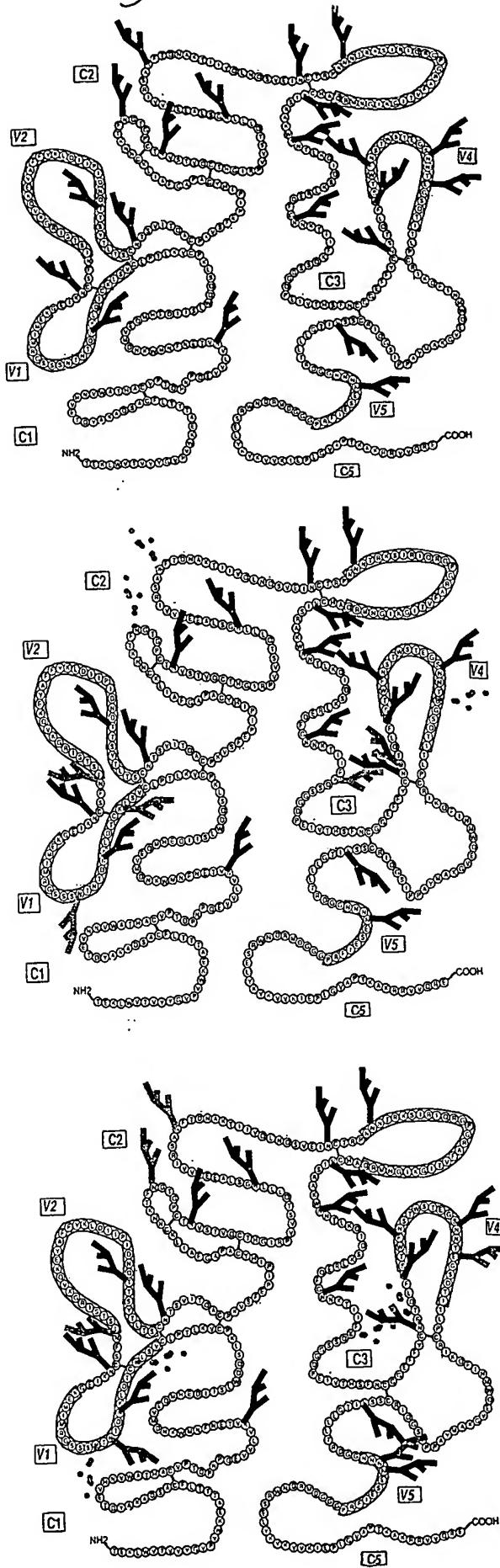


Figure 3



Early

- 21 original sites

Mid

- 5 sites are added
- 3 are removed

Late

- 4 sites are added
- Of the 5 sites added on the mid virus, 4 are now removed

Figure 4

A141 alignment of V1/V2

SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVVID	NDNTS--YKL INC
A141-35-1	.	.	.	.	.	.	.
A141-35-2	.	T	.	.	.	.	S.
A141-35-3	.	.	.	.	.	.	.
A141-35-4	.	T	.	.	R	.	.
A141-35-10	.	T	.	.	.	.	S.
A141-35-11	.	.	.	.	.	.	.
A141-35-12	.	.	.	.	.	.	.
A141-35-13	.	.	.	.	.	.	.
A141-35-14	.	.	.	.	.	.	.
SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVVID	NDNTS--YKL INC
A141-56-1	.	T	.	.	.	.	.
A141-56-2	.	.	D	.	.	.	.
A141-56-3	.	T	D	.	N	.	.
A141-56-4	.	T	.	.	.	.	.
A141-56-5	.	T	.	.	.	.	.
A141-56-10	.	T	.	.	N	.	.
A141-56-11	.	.	D	.	N	.	.
A141-56-12	.	.	D	.	N	.	.
A141-56-13	.	T	.	.	.	.	.
A141-56-14	.	T	.	.	.	.	.
SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVVID	NDNTS--YKL INC
A141-84-1	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-84-2	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-84-3	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-84-4	. N .	T	.	.	N I	.	.
A141-84-5	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-84-6	.	N	.	.	N	.	-TS . .
A141-84-7	. N	T	.	.	.	.	.
A141-84-8	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-84-9	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVVID	NDNTS--YKL INC
A141-117-1	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-2	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-3	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-4	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-5	. N . D . R	. N . S .	EGKVE	.	N I	. D . V .	.
A141-117-6	.	.	.	.	.	.	.
A141-117-7	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-8	. N . D . R	. N . S .	EGK . E .	.	N I	. D . V .	.
A141-117-9	.	T	.	G	N	.	.
A141-117-10	. N	T	E	.	.	.	.
A141-117-11	. S . K . D .	D	. N . S G R M I . E K .	.	N I S	. D . V . F I	.
A141-117-12	. N . D . R	.	. N . S . EGK . E .	.	N I	. D . V .	.
A141-117-13	. S . K . D .	D	. N . S G R M I . E K .	.	N I S	. D . V . F I	.
A141-117-14	.	.	D	.	N	.	.
SF162	CVTLHCTNLK	NATNTKSSN-	WKEMDRGEIK	NCSFKVTTSI	RNKMQKEYAL	FYKLDVVVID	NDNTS--YKL INC
A141-215-1	.	.	D	.	N	.	.
A141-215-2	.	T	G	.	N	.	N .
A141-215-3	.	.	D	.	N	.	.
A141-215-5	.	.	D	.	N	.	.
A141-215-12	.	.	D	.	N	.	.
A141-215-13	.	T	G	.	N	.	N .
A141-215-14	.	T	G	.	N	.	N .
A141-215-15	.	.	D	.	N	.	.

Figure 5

A141 alignment of V4

SF162	CNSTQLFN	-	STWMN	-	TIGPNNT	NG--TITLPC
A141-35-1					R	
A141-35-2						
A141-35-3						
A141-35-4						
A141-35-10						
A141-35-11						
A141-35-12						
A141-35-13						
A141-35-14						
SF162	CNSTQLFN	-	STWMN	-	TIGPNNT	NG--TITLPC
A141-56-1						
A141-56-2						
A141-56-3						
A141-56-4						
A141-56-5						
A141-56-10						
A141-56-11						
A141-56-12						
A141-56-13						
A141-56-14						
SF162	CNSTQLFN	-	STWMN	-	TIGPNNT	NG--TITLPC
A141-84-1	ST WMFN	D.	KES	D.	E.	N
A141-84-2	ST WMFN	D.	KES	D.	E.	N
A141-84-3	ST WMFN	D.	KES	D.	E.	N
A141-84-4						
A141-84-5	ST WMFN	D.	KES	D.	E.	N
A141-84-6	ST WMFN	D.	KES	D.	E.	N
A141-84-7						
A141-84-8						
A141-84-9	ST WMFN	D.	KES	D.	E.	N
SF162	CNSTQLFN	-	STWMN	-	TIGPNNT	NG--TITLPC
A141-117-1	ST WMFN	D.	KES	D.	E.	N
A141-117-2	ST WMFN	D.	KES	D.	E.	N
A141-117-3	ST WMFN	D.	KES	D.	E.	N
A141-117-4	ST WMFN	D.	KES	D.	E.	N
A141-117-5	ST WMFN	D.	KES	D.	E.	N
A141-117-6						
A141-117-7	ST WMFN	D.	KES	D.	E.	N
A141-117-8	ST WMFN	D.	KES	D.	E.	N
A141-117-9		S				
A141-117-10		□				
A141-117-11			F.S	TWS.E.S		E.SD
A141-117-12	ST WMFN	□D	KES	D.	E.	N
A141-117-13			F.S	TWS.E.S		E.SD
A141-117-14		□				
SF162	CNSTQLFN	-	STWMN	-	TIGPNNT	NG--TITLPC
A141-215-1						E
A141-215-2						
A141-215-3						
A141-215-5						
A141-215-12						
A141-215-13						
A141-215-14						
A141-215-15						